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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,441	03/30/2001	Dmitri Loguinov	US 010021	8462

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
NGUYEN, THANH T	

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/822,441	LOGUINOV ET AL.	
	Examiner	Art Unit	
	Tammy T Nguyen	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *(3)* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1,2,5-7 and 10-14* is/are rejected.

7)☒ Claim(s) *3,4,8,9,15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *July 26, 2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

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Detailed Office Action

1. This action is in response to the application **09/822,441** filed. **March 30, 2001.**

2. Claims **1-16** have been examined.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1,2,5,6,7,10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Injong Rhee. (USPN 6,421,387 – Date of Patent: July 16, 2002, herein referred to as "Rhee").

5. As to claim 1, Rhee teaches the invention as claimed, including a method for estimating retransmission timeout (RTOj) used in a communication system to

support multiple retransmission of the same packet between a server and a client, the method comprising the steps of: (a) transmitting a plurality of data packets from said server to said client (col.5, lines 10-15, and col.7, lines 38-45); (b) transmitting a negative acknowledgment (NACK) packet for retransmission by said client if one of said data packets is missing (col.6, lines 20-30); (c) computing a round-trip delay (RTT) corresponding to a latency between sending said NACK packet to said server and receiving the corresponding retransmission of said missing packet from said server (col.6,lines 5-19, and col.14, lines 8-20);(d) calculating a plurality samples of delay (j) between the reception adjacent packets of said plurality of data packets by said client (col.13, lines 40-60); (e) determining a smoothed inter-packet delay variance (SVAR j) based on said calculated delay samples (smoothed inter-packet delay as show in Fig.9,14, and col.15, lines 35-50); and (f)computing said RTOJ based on said determined RTT, and said determined smoothed inter-packet delay variance (fig.15, and col.16, lines 5-15).

6. As to claim 2, Rhee teaches the invention as claimed, further comprising the step of controlling retransmission of said NACK based on said computed RTOj, said computed RTOj being a delay between subsequent transmissions of said NACK packet from said client to said server (col.13, lines 40-60).

7. As to claim 5, Rhee teaches the invention as claimed, wherein the communication link between said server and said client comprises at least one of a wireless communications link, a wired communication link, and the combination of a

wired communication link and a wireless communications link (col.2, lines 30-43, and col.6, lines 51-65).

8. As to claim 6, Rhee teaches the invention as claimed, including a method for managing transmission of a plurality of data packets over a communications link between a server system and a client system; the method comprising the steps of: (a) transmitting a plurality of burst packets from said server to said client (col.5, lines 10-15, and col.7, lines 38-45); (b) transmitting a negative acknowledgment (NACK) packet for retransmission by said client if one of said burst packets is lost (col.6, lines 20-30, and col.15, lines 38-45);(c) determining a round-trip delay (RTTi) corresponding to the actual time between the transmitting said NACK packet by said client and a determination by said client said lost burst packets was transmitted successfully (col.11, lines 33-37); (d) calculating a plurality samples of inter-burst delay (j) between the reception of adjacent burst packets of said plurality of burst packets by said client (col.13, lines 40-60); (e)determining a smoothed inter-burst delay variance (SVAR_j) based on said calculated inter-burst delay samples (smoothed inter-packet delay as show in Fig.9,14, and col.15, lines 35-50); and, (f) computing said RTOj based on said determined RTT and said determined smoothed inter-burst delay variance (fig.15, and col.16, lines 5-15).

9. As to claim 7, Rheeteaches the invention as claimed, further comprising the step of controlling multiple retransmission of said NACK based on said computed RTOj, said computed RTOj being a delay between subsequent transmissions of said NACK packet from said client to said server (col.13, lines 40-60).

10. As to claim 10, Rhee teaches the invention as claimed, wherein said communication link between said server and said client comprises at least one of a wireless communications link, a wired communication link, and the combination of a wired communication link and a wireless communications link (col.2, lines 30-43, and col.6, lines 51-65).

11. As to claim 11, Rhee teaches the invention as claimed, including a system for estimating retransmission timeout (RTO) used in a communication system to support multiple retransmission of the same packet between a server system and a client system, comprising: means for controlling said multiple retransmissions of a data packet between said server system and said client system over said communication link based on an actual around-trip delay (RTT) (col.14,lines 8-20) and a smoothed inter-packet delay variance (SVAR j) associated with said client system (fig.14) , said RTT being a latency between sending a negative acknowledgment (NACK) packet to said server system responsive to a lost packet and receiving the corresponding retransmission of said lost packet from said server, said smoothed inter-packet delay variance (SVAR j) being variation of delays before and after each received packet or burst of packets, whereby the over-estimation and under-estimation of said RTO is relatively minimized (col.13, line 40 to col.14, line 20).

12. As to claim 12, Rhee teaches the invention as claimed, including a system for managing transmission of a plurality of data packets over a communications link between a server system and a client system, comprising; means for receiving said data packets in the form of frame comprised of packets (col.9, lines 45-50); means

for determining whether any frame packets were lost during transmission (frame packets lost during transmission as show in fig.4); means for requesting that any lost frame packets be retransmitted (after receiving a NACK for lost packets then retransmission packet also show in fig.4); means for determining a round-trip delay (RTTi) corresponding to a latency between requesting retransmission of said lost frame to said server and receiving the corresponding retransmission of said lost frame from said server (col.6, lines 40-50); means for determining inter-burst packet delay variations (col.13, lines 45-67, and col.14, lines 8-22); and means for determining a retransmission timeout (RTOJ) based on said determined RTT and said determined inter-burst delay variations (col.15, lines 1-46).

13. As to claim 13, Rhee teaches the invention as claimed, wherein said means for determining said RTOj further comprises a means for determining an inter-burst delay (j) between the reception of a first packet of said lost burst packets and a last packet of a prior burst packets (col.16, lines 5-15); and, a means for determining a smoothed inter-burst delay variance (SVAR_j) (Fig.14).
14. As to claim 14, Rhee teaches the invention as claimed, further comprising a means for controlling multiple retransmission of said NACK based on said computed RTOj , said computed RTOj being a delay transmission of said NACK packet from said client to said server (col.13, lines 40-60).

Allowable Subject Matter

15. Claims 3,4, 8,9, 15, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

16. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at **(703) 305-7982**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 6:00 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to **(703) 872-9306**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Bill Cuchlinski, may be reached at **(703) 308-3873**.

TTN
August 5, 2004

WILLIAM A. CUCHLINSKI, JR.
SUPERVISORY PATENT EXAMINER
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